THE INDEXING OF CHEMICAL LITERATURE

AT the recent meeting of the American Association for the Advancement of Science the Committee on Indexing Chemical Literature presented to the Chemical Section its twelfth annual report. The following is a reprint of an advance copy of the report. During the current year the following bibliographies have been printed in the channels indicated :—

(1) Index to the Literature of Didymium, 1842-1893. By A. C. Langmuir. School of Mines Quarterly (Columbia College, New York). Vol. xv. pp. 33-47. November 1893. In this index the author follows the plan originally proposed by H. C. Bolton in 1870.

(2) The Tannins, a monograph on the history, preparation, properties, methods of estimation and uses of the vegetable astringents. With an index to the literature of the subject. Vol. ii., the Tannins of oak-bark, mangrove, canaigre, chestnut. By Henry Trimble. Philadelphia, 1894. Pp. 172. 12mo. Ill.

This forms the second volume of the work previously noted in our reports. The carefully compiled bibliography contains about 325 titles.

Reports of progress have been received from several chemists. Prof. Arthur M. Comey announces that the first volume of his Dictionary of Chemical Solubilities, devoted to inorganic compounds, has gone to press, and will be published before the close of the year. The second volume is also in active preparation.

Dr. Alfred Tuckerman reports that the United States Section of his Bibliography of Mineral Waters will be ready for the printer in a few months.

Prof. Clement W. Andrews states that he had done much work on a Bibliography of the Polariscopic Determination of Sugar; but, learning that Prof. H. W. Wiley, chief chemist of the U. S. Department of Agriculture, was engaged in a similar undertaking, generously handed over to him all the material he had accumulated. The combined manuscripts have recently been returned to Prof. Andrews, who will continue the work.

Prof. H. W. Wiley reports great activity on the part of the Division of Chemistry of the U. S. Department of Agriculture, in the preparation of bibliographies and special indexes, but he is obliged to admit difficulties in securing the printing of the manuscripts. We quote the following paragraphs from his letter, dated June 29, 1894, addressed to the chairman of the committee:—"The elegant bibliography of heavy metals occurring in canned goods, by Mrs. K. P. McElroy, has not yet found an avenue for publication." . . . "We also have a very complete bibliography of carbohydrates from the point at which they were left by Tollens in his Handbuch, in 1888, up to the close of 1892. This work was partly done by myself, but chiefly by Mr. H. E. L. Horton, and we were assisted greatly by receiving many hundred titles from Prof. C. W. Andrews, of the Massachusetts Institute of Technology. But what we can do with such a bibliography, comprising as it does three or four thousand titles, I do not know. The Department of Agriculture will not publish it, it is too large for the Journal of the American Chemical Society, and so it lies idle." . . . "A very complete bibliography of agricultural chemistry for the year ending 1893 has also been completed by the committee appointed by the Association of the Official Agricultural Chemists, of which Dr. William Frear is chairman. This bibliography I submitted to the Assistant Secretary of Agriculture with the request that it be published as a part of the Proceedings of the Association, but this request was not complied with. The same committee has in preparation a complete bibliography of agricultural chemistry for the year ending June 30, 1894, and this report will be presented to the meeting of the Association of Official Agricultural Chemists in August at Washington. We shall then have unpublished a complete bibliography of all agricultural chemical topics for the two years ending June 30, 1894."

Mr. P. H. Seymour's "Bibliography of Aceto-Acetic Ester" is in the printer's hands, and will be published by the Smithsonian Institution during the summer.

Prof. F. W. Clarke reports that he is engaged on a new edition of his "Recalculation of Atomic Weights."

Prof. H. C. Bolton has begun a "Supplement to his Bibliography of Chemistry," and last winter visited the chief libraries of Italy in search of material.

Dr. H. P. Talbot, of the Massachusetts Institute of Technology, with the co-operation of Dr. H. C. Bolton, has begun a second edition of the "Index to the Literature of Manganese," published by the latter in 1875, with the intention of bringing it down to date.

Prof. James Lewis Howe, of Louisville, Ky., reports progress on a Bibliography of the Platinum Metals.

Dr. W. H. Magee, of Cornell University, has completed Indexes to the Literature of Cerium and of Lanthanum, and the MSS. have been approved by your committee, and, together with Mr. Langmuir's Index to the Literature of Didymium, have been recommended to the Smithsonian Institution for publication. The three Indexes have been accepted by the Smithsonian, and will appear in the Miscellaneous Collections.

Prof. Charles E. Munroe reports that part ii. of his "Index to the Literature of Explosives" does not complete his work, as stated in the Eleventh Annual Report; he is engaged on a continuation.

Dr. Claude Augustus Oscar Rosell's thesis, presented to the Columbian University, Washington, D. C., in June, entitled "Investigation of the Properties of Ferric Acid," contains an exhaustive bibliography of the Ferrates and Ferric Acid; the channel of publication is not yet determined.

Prof. J. Christian Bay reports progress on a bibliography of alcoholic fermentation, and has commenced a bibliography of glycogen.

The annual reports of this committee are properly confined to the productions of Americans; but the chairman begs leave to direct attention to indications of a growing appreciation of the value of special bibliographies on the part of European chemists, confirming by their recent and proposed activities the work begun in America, at the chairman's suggestion, now more than twelve years ago. Several European countries have long published periodical bulletins of all books issued in their own lands, but they are, as a rule, too comprehensive in scope for the convenience of the specialist in science. Since the "Biblioteca Historico Naturalis," published at Göttingen, dropped chemistry from its pages (in 1887) the most useful bibliography of current scientific works has been the well-known "Naturæ Novitates" (Friedlaender, Berlin), now in its sixteenth year; however, this trade serial is stronger in German than in other languages, and falls short of the completeness desirable.

In technology and technical chemistry the admirable "Repertorium der technischen Literatur" (Leipzig), in its continuation, affords invaluable assistance to the industrial chemist. Recently, too, the following periodical has been established: "Biblioteca polytechnica; internationale Bibliographie der gesammten neuen technischen Literatur, herausgegeben von Fritz von Szczepanski." (St. Petersburg and Leipzig, 1893.) 8vo. 12 numbers per annum. This includes chemistry pure and applied.

The need of an exhaustive authoritative bibliography of current chemical books of the world is still felt.

In a private letter to the chairman of your committee, Dr. Bechhold, of Frankfort-on-Maine, announces his intention of publishing a full and complete Index to Current Chemical Literature in all languages, on a most comprehensive plan; the first number of this serial will be awaited by chemists with great interest.

Heinrich Wien (Vienna) and F. A. Brockhaus (Leipzig), announce the publication of a "Universal Index to the World's Technical and Scientific Literature." This ambitious undertaking is intended to embrace both books and periodicals, and to represent all the known literature that has appeared in every part of the world; five parts are projected, viz. chemistry, medicine, mining, photography, electricity.

As most of the members of the Chemical Section are aware, a call has been issued for an International Congress of Applied Chemistry, to be held, under the patronage of the Belgian Government, at Brussels in August 1894. At that meeting it is proposed to found a Review of Reviews of Applied Biological Chemistry in several languages, to contain a *résumé* of chemical work in that branch from all parts of the world. The Secretary General of the Congress is M. Sachs, 58 Rue d'Allemagne, Brussels.

At the Congress of Chemists held in Chicago, in August 1893, your chairman had the honour to read an address on an "International Index to Chemical Literature" (*J. Am. Chem. Soc.*, xv. Oct. 1893), in which he proposed a simple scheme

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for indexing current periodical chemical publications by international co-operation. It is extremely gratifying to record that the necessity of international co-operation has since been suggested by so weighty an authority as the Royal Society (London). That splendid monument of the bibliography of science, "The Catalogue of Scientific Papers," published by the Royal Society, has failed to satisfy the requirements of students in science, owing to the lack of a subject-index to the prodigious material classified under the names of the authors; but according to a circular issued by the Royal Society in April, "it is hoped that a key to the volumes already published may be eventually issued." The Royal Society further announces its intention of continuing the "Catalogue of Scientific Papers" after Jan. 1, 1900, on an enlarged and improved plan, with the aid of international co-operation, and asks for suggestions as to the best methods of inaugurating such a scheme.

Although this report deals with chemistry, it may be proper to mention here an important undertaking in another branch of science, as it affords an additional instance of the progress now making towards international co-operation in bibliography. At the Washington meeting of the International Congress of Geologists a committee on the Bibliography of Geology was appointed for the purpose of preparing a list of the geologic bibliographies now in existence. This work is now approaching completion under the direction of M. Emmanuel de Margerie (Paris), the Secretary of the International Committee.

American botanists also are showing their appreciation of bibliographical work. A committee of the Torrey Botanical Club publishes in the Bulletin of the Club an "Index to recent Literature relating to American Botany." This Index was begun in January 1894, and is continued each month; the arrangement is alphabetically by authors.

At the Chicago Congress of Chemists a committee was appointed to bring about the organisation of a triennial (or quinquennial) international meeting of chemists. Prof. Frank W. Clarke, one of the members of your committee, is chairman of that body. Perhaps the future World's Chemical Congresses may arrange the publication of an exhaustive Index to the Chemical Literature of the World by international co-operation, either in accordance with the scheme proposed by your chairman in his address at Chicago, or in some more efficient way.

Thus, it is evident that immense progress is being made in the compilation of indexes and bibliographies in many branches of science, in both Europe and America; it is to be hoped that American chemists, who have been in some measure pioneers in the matter, will feel stimulated to still greater exertions than before.

The chairman has a limited number of copies of the Tenth Report, containing a list of forty-five Indexes to Chemical Literature, which he will be glad to send to applicants. Communications should be addressed to the Chairman, at the University Club, New York City.

Committee,
H. CARRINGTON BOLTON, *Chairman*,
F. W. CLARKE,
ALBERT R. LEEDS (in Europe),
ALEXIS A. JULIEN,
JOHN W. LANGLEY,
ALBERT B. PRESCOTT (in Europe),
ALFRED TUCKERMAN.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, September 17.—M. Lœwy in the chair.—A note was presented by M. Faye concerning the International Geodetic Association at Innspruck, and intimating the probability of a certain number of geologists being requested to join its permanent Commission.—Shooting-stars observed in Italy in August 1894; a note by P. François Denza. The numbers of shooting-stars observed at some four-and-twenty stations scattered all over Italy are recorded. The swarm was thicker on the night of 10–11 than on other nights. By observations made at the Vatican, the principal radiant point had the co-ordinates $\alpha = 45°$, $\delta = 54°$.—On the problems of dynamics of which the differential equations allow an infinitesimal transformation, by M. P. Stäckel. An infinitesimal transformation P_f, which allows $n - 1$ differential equations between the independent variables $p_1, p_2, \ldots, p_n$ which determine the position of the mobile system, does not exist when the variables $p_1, p_2, \ldots, p_n$ are so chosen that: (1) The function of the forces Π depends only on $p_2, p_3, \ldots, p_n$; (2) the expression of the acting force is reduced to

$$\tfrac{1}{2}c^{p_1}\sum_{k,\lambda} b_{k\lambda}(p_2, p_3, \ldots, p_n)\frac{dp_k}{dt}\frac{dp_\lambda}{dt};$$

c is an arbitrary constant, and the coefficients $b_{k\lambda}$ depend only on the arguments $p_2, p_3, \ldots, p_n$. Then the infinitesimal transformation P_f has the canonic form $P_f = \frac{\partial f}{\partial p_1}$. These conditions are necessary and sufficient.—On the linear equations from the derived partials of the second order, by M. A. Petot.—On the mixture of liquids, by M. J. de Kowalski. The author has endeavoured to obtain experimental confirmation of Van der Waals' theory of the miscibility of liquids if sufficient pressures be applied. Negative results only were obtained in the cases of isobutyl alcohol and water and ether and water. The system ethyl alcohol: isobutyl alcohol: water with a blue colouring matter, completely mixing at 22°·7, gave at 19°·5 mixture at a pressure of 880 to 900 atmospheres. At 19° the same system showed no signs of becoming homogeneous, even under a pressure much greater than 1000 atmospheres.—On the presence of *Thylles gommeuses* in the vine, by M. Louis Mangin.—On a vine disease caused by *Aureobasidium vitis*, by M. P. Eloste. The disease known as the "maladie rouge" has been widely disseminated this year. The author has found the mycelium of *Aureobasidium vitis* in the altered parts of the leaves, but he has not yet found its fructifications, nor is its parasitism completely proved; a full description of the progress of the disease in an attacked plant is given.—A waterspout at sea, by M. Génot.

BOOKS RECEIVED.

BOOKS.—Fertilisers and Feeding-Stuffs: Dr. B. Dyer (C. Lockwood).—Proceedings of the Royal Physical Society, Session 1893–94 (Edinburgh).—University College, Bristol; Calendar for the Session 1894-95 (Bristol, Arrowsmith).—Newfoundland as it is in 1894: Rev. M. Harvey (K. Paul).—Lehrbuch der Bakteriologischen untersuchung und Diagnostik: Dr. L. Heim (Stuttgart, Enke).—The Collected Mathematical Papers of Arthur Cayley, Sc.D., F.R.S., Vol. vii. (Cambridge University Press).

CONTENTS.

PAGE
The Works of Henry J. S. Smith. By Major P. A. MacMahon, F.R.S. 517
Abstract Geometry. By A. E. H. L. 520
Three Great Empires 522
Our Book Shelf:—
  Webb: "Celestial Objects for Common Telescopes" 523
  Scherren: "Ponds and Rock-Pools, with Hints on Collecting for, and the Management of, the Micro-Aquarium" 523
  Harvey: "Newfoundland as it is in 1894: A Hand-book and Tourist's Guide" 523
Letters to the Editor:—
  The Logic of Weismannism.—**J. T. Cunningham** 523
  "Darwinism is not Evolution."—**A. A. W. H.** . . 524
  Extraordinary Phenomenon.—**Admiral Sir Erasmus Ommanney, F.R.S.** 524
  Aurelia aurita.—**Edward T. Browne** 524
  Science in the Medical Schools.—**Prof. H. Alleyne Nicholson** 524
On the Doctrine of Discontinuity of Fluid Motion, in Connection with the Resistance against a Solid moving through a Fluid. By Lord Kelvin, P.R.S. 524
Science, in School and after School. By H. G. Wells 525
With Prof. Heim in the Eastern Alps. By H. M. C. 526
Notes 527
Our Astronomical Column:—
  The Accuracy of Astronomical Observations 531
  Liverpool Observatory 531
  The Variable R Lyræ 531
  The Cleaning of Object-glasses 531
On the Magnitude of the Solar System. By Prof. William Harkness 532
The Meteor and Meteor-Streak of August 26, 1894. (*Illustrated.*) By W. F. Denning 537
The Indexing of Chemical Literature 539
Societies and Academies 540
Books Received 540

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